QL Technical

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BILL HARMER
97 Ruskin Avenue
Ottawa, Ontario
K1Y 4B3

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The most frequent repair problem complained of by QL users seems to be failure of the keyboard. The solution for non-hardware hackers seems to be to send the computer to a repair service, like that of Dan Elliott, Route 1, Box 117, Cabool, MO, USA 65689 or a closer local Sinclair repair person. For the hardware hackers prepared to open the case of the QL and fiddle around inside to change the keyboard membrane, suppliers like Sharp's, Box 326, Mechanicsville, VA, USA 23111 or on the west coast, American Micro Sysytems, 2175 Aborn Rd.,Suite 262, San Jose, CA,USA 95121. Prices for the membrane, the usual cause of bad keys,is about US$30, depending on the supplier. Temporarily,conducting epoxy may fix it.

The most common software problems encountered by the QL seem to involve incompatibility with the aftermarket or even Sinclair chips. The ROM chips in the QL, for example,have been upgraded a number of times since release. Very early QL's (mainly from when the QL was only available in England) had a lot of serious bugs. Upgraded ROM chips are available (again for the computer hacker to install if a technical person, or for a service shop if not), from both of the above QL suppliers. Another bug with the QL (as with some other Sinclair computers is keyboard bounce or glitches caused by that, and the Washington, DC TSUG has been distributing anit-bounce chips to its members (for a fee to cover costs). Unfortunately there has been a report that one of these types of anti-bounce chips will not work with one of the new MS DOS, IBM PC emulator programs for the QL.

Emulators are the big news in the QL world these days. News is that those who have tested the PC Conqueror, MS DOS emulator have found it considerably faster than The Solution, MS DOS emulator. Of course any emulator is bound to run programs more slowly than the original computer unless it includes a lot of hardware too, such as a co-processor board. The public domain CP/M emulator for the IBM PC when run at 4.77MHZ reduces the equivalent clock speed of CP/M (compared to a native Z-80 computer) to about 250KHz. Most CP/M emulator boards for 6502 computers run their Z-80 at 1 MHz to mesh its timing with the 1MHz of the 6502/6510 microprocessor anyway, so that there is really no substitute for a native CP/M computer's speed (except perhaps a 25 MHZ, AT compatible, running the software emulator). A hardware emulator for IBM PC, called the Baby Blue Board was once sold for running CP/M programs. Note that the public domain emulator Z80MU, needs no hardware, but it does need other software to be used with it to allow you to read and convert to MS DOS format, CP/M disks. Still another CP/M software emulator requires your computer to be fitted with a V-20 chip (most PC's allow you to just unplug the 8088 and plug in a V-20 instead, if this is a problem, the V-20 costing about $6-20 depending where you buy it). And QL CP/M emulators are used by an amazing number of users and are still available, from American Micro Systems (address above) for example for US$ 69 (Success emulator). For the TS2068, the Aerco disk system offers a CP/M compatible operating system, RP/M. Even the Commodore 64 used to have CP/M cartridges made for it, one made by Commodore themselves, although one never sees them advertised, and one wonders if they are still available. (The Commodore 128 has built-in CP/M facilities.) Rumours that an Apple Macintosh emulator for the QL was being worked on was an exciting development too but reports of a NeXT emulator apparently were much exaggerated (see our Amateur Programmer's Line article).

The Washington,(DC)TSUG has had a number of group meetings on Pascal as run on the QL. Apparently several compilers are available (including one from the above-mentioned American Micro Systems, for US$ 57). Owners of the TS2068 may have already tried Pascal on the Spectrum ROM equipped TS2068 as HiSoft made an excellent Pascal compiler for the Spectrum. Even the lowly TS1000 had its Pascal, a subset of standard Pascal (mainly allowing only integer arithmetic, not floating point) called Partial Pascal, which had the best program documentation to get beginners started using it, that came with any Sinclair program that the writer has ever seen. It was available also for the TS2068 (no Spectrum ROM needed) but the company marketing it, Semper Software, has long since vanished form the scene as far as the writer knows. (If you have Partial Pascal and are not using it, you could easily sell it since there is still a demand for it.)

Amateur Programmers' Line --- A Column

There are a lot of amateur programmers out there in never-never land (perhaps, it should be called that since we never make much profit from our work) and no community relies on them more than the Sinclair computer users who have been largely abandoned (at least in North America) by the commercial software companies. It is time I think, to see this phenomena honoured by a column of its own and here it is.

A recent inquiry from SLIX, the Sinclair information exchange in California, about programs published in/ sold through the French language newsletter, QL_DOC of Montreal, had the writer looking over the descriptions of some of these programs. Often the listings, either Superbasic or 68008 assembly language are published right in the newsletter itself. Some are utilities, some are simply routines, but others are long programs. Two of the names of programmers that keep occuring in the newsletter are Real Gagnon (the publisher) and Jean-Claude Touzin. Some programs have also been contributed by W. Lenerz. W. Lenerz in particular has contributed assembly language programs to in one case (MAJI_EXE) allow multi-tasking within Quill, the QL wordprocessor (for example allowing a clock program to run while you are doing the word processing), and in another, ETAT_BIN, extending Superbasic with a command to query the staus of a file (whether it exists or not) before trying to do something with it (which will halt the Superbasic program if the file does not exist). QL_DOC is written (as are program comments, prompts) in the French language and published by Real Gagnon, 8286 St-Hubert, Montreal, (Que), Canada H2P 1Z3 ($12 per year, $2 for sample copy).

SLIX itself rejoices in the presence of amateur programmers amongst its ranks, and Mark Wahl, has produced a fast file search program for the QL in C language and even a NeXT computer name-screen program (the source of an earlier rumour, erroneous it turns out that he was working on a full-featured NeXT emulator for the QL). Bill Miller, who runs the SLIX information/data bank for Sinclair computer information has been successful in cracking the barrier of reading disks of a number of different formats on the QL it would seem, as they accept everything from Commodor 64 format to NeXT optical disks. The one thing they are not too happy to accept of course is paper files, since someone would have to key them in there. TS2068 Oliger, Aerco and LKDOS (MFM, double-density encoded versions) disk files are accepted too, plus QL, plus MS DOS (double-density). Since I noticed an advertisement by Essex Software Pub. Co.,POB 391, Cedar Grove, NJ, USA07009, in PC Magazine for software to make IBM-clone scanners (that will normally only digitize pictures), scan printed matter and convert it to ASCII files, maybe even the frowned upon paper form of documentation will be accessible to computerization. At present, text scanning software is expensive and unreliable, but it is something that we can all look forward to in the future, given say five more years of technical progress and price reductions to put it into the hands of amateurs. The California group also has a link to Unix systems which they felt was the likely destination for Sinclair amateur computing, since CP/M and MS DOS seemed not to be efficient enough or portable enough. Their favoured system is MINIX, the source code for which (C Language) is available from Austin Code Works, 11100 Leafwood Lane, Austin, TX,USA 78750-3409 (in MS DOS form) as are the less elaborate XINU, and more elaborate OS/88, Unix clones. The XINU, (Unix, spelled backwards), is based on the material from a book on rolling your own operating systems by Prof. Comer (a new edition of which is expected some time soon). To use these one really needs an IBM compatible computer and Microsoft C compiler. I don't know if they have been adapted to compile on a disk drive equipped QL by the programmers in SLIX's area.

It would be nice if lots of serious amateur programming were going on in BASIC for the MS DOS world, but BASIC programming seems largely relegated to the orphan computer world. On browsing through some old public domain/ shareware programs as a sort of sightseeing trip (the program DR.COM, published in PC Magazine, Aug. 1987, I believe, allows one to browse through machine language, compiled programs in search of text), I found a couple of programs that had been compiled using Lattice C (Language) and some that seemed to have been done in assembly language, so it seems safe to assume that the serious amateur/ shareware programmer for the IBM PC world uses C language rather than BASIC. More's the pity, since Bill Gates, head of Microsoft used to say there was nothing he couldn't do as well with Quick BASIC,and has now released MS BASIC'for professional developers'(ver. 7.0).